

REMARKS/ARGUMENTS

The Applicant originally submitted Claims 1-20 in the application and amended Claims 11-15 in a previous response. In the present response, the Applicant has not amended, canceled or added any claims. Thus, Claims 1-20 are currently pending in the application.

I. Rejection of Claims 1-15 under 35 U.S.C. §103

The Examiner has rejected Claims 1-15 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,905,766 to Nguyen in view of U.S. Patent No. 6,260,152 to Cole, *et al.* The Applicant respectfully disagrees.

The Applicant does not find where Nguyen discloses generating an event signal based upon a first clock rate as recited in independent Claims 1, 6 and 11. Nguyen relates to a data vector synchronizer which transfers data vectors from a first domain and a first clock rate to a second domain at a second clock rate for any frequency or phase relationship between the first clock rate and the second clock rate. (*See* column 1, lines 6-11.) Nguyen is silent on generating an event signal based upon a first clock rate when transferring the data. In fact, Nguyen discloses transferring the data from one time domain to another time domain based **only** on the first clock rate and the second clock rate **without** any additional control signals. (*See* column 2, lines 36-40, *emphasis* added.) Thus, Nguyen does not teach or suggest generating an event signal based upon a first clock rate as recited in independent Claims 1, 6 and 11.

Cole relates to synchronizing multiple signals in systems having multiple clock domains. (*See* column 1, lines 7-10.) Cole, however, also does not teach or suggest generating an event signal

based upon a first clock rate. Instead, Cole discloses using the output of a counter in a first clock domain (*e.g.*, the least significant bit (LSB) from the counter) to synchronize the transfer of multiple data inputs. (*See* column 2, lines 26-47.) The LSB is not an event signal but is one of many signals provided by the counter that can be used to synchronize the transfer of data. (*See* column 3, lines 30-33.) In other words, the LSB is not generated to indicate the occurrence of an event (*i.e.*, an event signal) but is one of many outputs from the counter that may be used to synchronize the data transfer. As such, Cole does not cure the above noted deficiency of Nguyen.

The Examiner does recognize that Nguyen does not teach or suggest a synchronous notification subsystem configured to receive an event signal, synchronize the event signal to a second clock rate based upon an edge transition of the event signal and the second clock rate and generate a synchronous notification signal therefrom. To cure this recognized deficiency, the Examiner cites Cole. (*See* Examiner's Office Action, pages 2-3.) Nevertheless, as argued above Cole does not generate an event signal. Cole, therefore, also does not teach or suggest receiving an event signal. Thus, Cole also does not cure the recognized deficiency of Nguyen.

Accordingly, Nguyen and Cole, individually or in combination, do not teach or suggest each element of independent Claims 1, 6 and 11 and Claims dependent thereon. As such, the cited combination of Nguyen and Cole does not render Claims 1-15 obvious. Additionally, one skilled in the art would not be motivated to combine the teachings of Cole with Nguyen since Nguyen teaches transferring data from one time domain to another time domain based **only** on a first clock rate and a second clock rate **without** any additional control signals. (*See* column 2, lines 36-40, *emphasis added*.) Cole, on the other hand, clearly discloses using an output of a counter for synchronizing the

transfer of data. (*See* column 2, lines 41-43.) As such, Cole teaches using another signal besides a first and second clock rate and teaches away from Nguyen. Thus, the combination of Nguyen and Cole is improper.

The cited combination, therefore, for at least the above reasons, does not provide a *prima facie* case of obviousness of independent Claims 1, 6 and 11 and Claims dependent thereon. Claims 1-15, therefore, are not unpatentable in view of the cited combination. The Applicant, therefore, respectfully requests the Examiner withdraw the §103(a) rejection of Claims 1-15 and allow issuance thereof.

II. Rejection of Claims 16-20 under 35 U.S.C. §103

The Examiner has rejected Claims 16-20 under 35 U.S.C. §103(a) as being unpatentable over Nguyen in view of Cole and in further view of U.S. Patent No. 6,594,327 to Radi. The Applicant respectfully disagrees. As discussed above, the cited combination of Nguyen and Cole does not teach or suggest generating an event signal based upon a first clock rate as recited in independent Claims 1, 6 and 11, and also recited in independent Claim 16. Additionally, the cited combination does not teach or suggest receiving the event signal and synchronizing the event signal to a second clock rate.

Radi has not been cited to cure these deficiencies of the cited combination but to teach additional elements of Claim 16 including an output interface subsystem. (*See* Examiner's Office Action, pages 5-6.) The Applicant does not find, however, where Radi, teaches or suggests generating an event signal or synchronizing an event signal to a second clock rate based upon an

edge transition of the event signal and the second clock rate. On the contrary, Radi discloses latching input data with its incoming input clock and, when the next incoming clock is edge-detected, feeding the latched data into another clock domain. (See column 5, lines 38-41.) Thus, even if the data is considered an event signal, Radi discloses interfacing the data between different time domains based on the edge-detection of a clock signal, not based upon an edge transition of an event signal and a second clock rate. As such, Radi does not cure the above deficiencies of Nguyen and Cole.

Thus, the cited combination of Nguyen, Cole and Radi does not provide a *prima facie* case of obviousness of independent Claim 16 and Claims dependent thereon. Claims 16-20, therefore, are not unpatentable in view of the cited combination. The Applicant therefore respectfully requests the Examiner withdraw the §103(a) rejection of Claims 16-20 and allow issuance thereof.

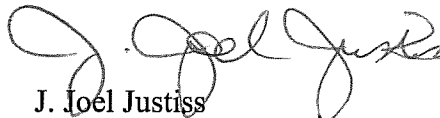
III. Conclusion

In view of the foregoing remarks, the Applicant now sees all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicits a Notice of Allowance for Claims 1-20.

The Applicant requests the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application. The Commissioner is hereby authorized to charge any fees, credits or overpayments to Deposit Account 08-2395.

Respectfully submitted,

HITT GAINES, PC



J. Joel Justiss
Registration No. 48,981

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P.O. Box 832570
Richardson, Texas 75083
(972) 480-8800